速　報

Description of a new iniomid fish from Choshi, Japan

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In the deep-waters of Japan the genus *Chlorophthalmus* had long been known by a single species *C. albatrossis* JORDAN and STARKS (1904. Bull. U. S. Fish. Comm. 22: 579, pl. 1, fig. 1), and recently HIYAMA added another species called *C. acutifrons* (1940. Jap. Journ. Zool. 9(1): 171, figs. 2-3). In our collection of deep-sea fishes of Pacific coast a series of specimens referable to this genus was obtained off Choshi, N. E. tip of Boso Peninsula. These specimens we believe to represent a new and the third species in our water. Leaving the revisional study of these species which forms another report to be published by the junior author, this new form may be described as follows.

Chlorophthalmus borealis n. sp.

The holotype. Standard length 111.3 mm. taken from a depth of about 200 meters, by a deep-sea trawl, on January 6, 1940. The 19 paratypes, measuring 82.7 to 131.6 mm. were collected from the type locality but in various dates in 1939 and 1940. The specimens were all collected at the Choshi Fish Market by the hands of Mr. Kiyomatsu MATSUBARA and the junior author.

The measurements of the holotype expressed in hundredths of standard length are: length of head measured from the tip of the snout to the posterior end of the opercular flap 26.5; maximum depth of the body 17.0; maximum width of the body 15.9; diameter of the dermal orbit 9.5; dermal interorbital width 2.4; length of snout measured to the nearest border of the orbit 7.1; length of the upper jaw 11.7; least depth of caudal peduncle 8.2; length of the longest pectoral fin ray 18.4; distance from the tip of the snout to the insertion of the dorsal fin 42.6.

D. 11; A. 10; P. 16; scales in lateral line 53; gill-rakers on the first arch 4+16.

The body is nearly rounded near the middle of the body, depressed before the eyes and compressed posteriorly to the caudal peduncle. From the top of the head to the nape the back is nearly flat becoming only slightly acuminated in front of the dorsal fin. The eyes, width of which is longer than the length of snout, are very close together above, with the range largely vertical. The maxillary reaches below the anterior rim of the pupil. The short pectoral fin extends posteriorly to the end of the dorsal base. The color in formalin is olivaceous, with a number of irregular cross-shades on the back and the sides of the body; two crescent dark markings developed on the caudal base are most prominent on the body except the jet-black cornea. The numerous but minute black spots cover almost whole surface of the body, most of them occurring along the rows of the scales. Around the vent the spots are more densely crowded than in other parts of body, and the vent opens in the middle of a jet-black blotch which suggests to have a function of phosphorescence. The lateral line is well developed, and the scales in the line are perforated.

The present species is distinguished from both *C. albatrossis* and *C. acutifrons* on the basis of measurements in several bodily parts, especially in the length of head, snout and pectoral fin, the diameter of eye, and the width of body, as presented in the following table. The new form is also separable from *C. acutifrons* in having rounded body and more elongated caudal peduncle. From *C. albatrossis* the present form is only separable by

Proportionate measurements and counts of *C. borealis* compared to those of *C. albatrossis* and *C. acutifrons*. The data were obtained from 20 specimens of each form, giving minimum and maximum, and in italics, the average size for each given character, expressed in hundredths of standard length. For the method of measurements, see text.

Locality	Choshi	Heta, Maisaka and Kumanonada	
Species	*C. borealis*	*C. albatrossis*	*C. acutifrons*
Standard length in mm.	82.7–131.6	82.9–134.7	106.2–148.5
Length of head	23.5–27.0 *25.8*	27.2–40.7 *29.2*	28.3–32.3 *31.0*
Maximum depth of body	15.4–19.6 *18.3*	15.3–19.4 *16.8*	18.2–21.7 *19.6*
Maximum width of body	12.8–17.0 *15.0*	12.2–15.6 *14.4*	11.4–14.1 *12.4*
Diameter of eye	8.7–10.4 *9.6*	10.4–12.5 *11.1*	7.8–9.7 *8.8*
Length of snout	6.4–7.8 *7.0*	6.2–7.9 *7.4*	9.1–12.0 *10.0*
Least depth of caudal peduncle	7.4–8.7 *8.0*	6.8–8.6 *7.6*	7.7–8.9 *8.3*
Length of pectoral fin	17.6–22.4 *20.6*	19.7–25.3 *23.5*	22.9–26.5 *24.9*
D.	11*	11	11
A.	9–10* *9.1*	8–10 *8.8*	9–10 *9.6*
Gill-rakers on the first arch	17–22* *18.6*	18–22 *19.7*	16–19 *17.4*
Scales in lateral line	50–56* *54.3*	54–57 *55.2*	54–57 *55.3*

* Determined from 9 specimens only.

the measurements of the head and eye, suggesting these two forms more closely related than the other. The practice of the identification of these three species, however, is rather difficult especially for smaller specimens, and we have experienced that the correct separation is only possible when a series of specimens in each form are compared with each other.

At the present time we have about 200 specimens covering three species repeatedly collected from the different localities as indicated in the table, but the present new form is found to occur only in the water of Choshi, northernmost locality, where no other forms were ever collected. From such a distributional pattern we are convinced to believe at the present moment that *C. borealis* is differentiated and restricted to the water of Choshi where the northern boundary in the distribution of *Chlorophthalmus* may be drawn on the Pacific coast of Honshyu, Japan.